

## CLAIMS:

1. A method of analyzing successive data sets, in which method
- the individual data sets comprise data elements which assign data values to spatial positions,
  - a local intensity variation  $[I(x,t)]$  is established from data values in successive data sets in
  - 5 corresponding spatial positions, and
  - on the basis of the local intensity variation a region of interest is localized from one or more of the successive data sets,
  - the local intensity variation in the region of interest is in conformity with a predetermined property.
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2. A method of analyzing successive data sets as claimed in claim 1, in which the local intensity variation is established for respective blocks of several data elements.
3. A method of analyzing successive data sets as claimed in claim 1 or 2, in
- 15 which method
- the region of interest is localized on the basis of variations in the local intensity variation, notably on the basis of a time derivative  $\frac{\partial I(x,t)}{\partial t}$  of the local intensity variation.
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4. A method of analyzing successive data sets as claimed in claim 3, in which method
- the region of interest is localized by localizing blocks of data elements in which
  - the variations in the local intensity variation are larger than a predetermined ceiling value and/or by localizing blocks of data elements in which the variations in the local intensity variation are smaller than a predetermined bottom value.
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5. A method of analyzing successive data sets as claimed in claim 1, in which method
- data elements are classified in one or more individual data sets,

- the classification of the data elements in the relevant data set (sets) indicating whether the relevant data element belongs to the region of interest or not.

- 5 6. A method of analyzing successive data sets as claimed in claim 5, in which method
- the classification is performed on the basis of a measure of similarity of the local intensity variation and a reference intensity variation in the region of interest.
- 10 7. A method of analyzing successive data sets as claimed in claim 5, in which method
- the classification is performed on the basis of a correlation of the local intensity variation with a mean intensity variation in the region of interest.
- 15 8. A method of analyzing successive data sets as claimed in claim 1, in which method
- parts with spatial gradients of data values are masked in individual data sets in as far as the modulus of the spatial gradients in the relevant parts exceeds a predetermined acceptable gradient modulus.
- 20 9. A method of analyzing successive data sets as claimed in claim 1, in which method the successive data sets are made to correspond to one another.
- 25 10. A method of analyzing successive data sets, in which method
- a plurality of regions of interest is localized on the basis of the local intensity variation the local intensity variation in said regions of interest being in conformity with a predetermined property, and
  - maximum intensity projections (MIPs) are determined for the respective regions of interest, and
  - a feature image is formed from differences between said maximum intensity projections.
- 30 11. A method of analyzing successive data sets as claimed in claim 10, in which method a center of the region of interest is determined in the feature image.

12. A method of analyzing successive data sets as claimed in claim 11, in which method

- the feature image is transformed to pole co-ordinates with said center as the origin, and
- a boundary of the region of interest is localized in said transformed feature image.

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13. A method as claimed in claim 3, in which method

- a mask is derived from the time derivative of the local intensity variation for an individual data set, and
- the region of interest is segmented from the relevant data set by means of the mask.

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14. A method as claimed in claim 13, in which method the mask is derived by applying a threshold filter to the time derivative of the local intensity variation for the relevant data set.

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15. A method as claimed in claim 3, in which method a spatial distribution of the time derivative of the local intensity variation is reproduced for an individual data set.

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16. An analysis system for analyzing successive data sets,

- in which the individual data sets comprise data elements which assign data values to spatial positions,
  - which analysis system is arranged to
  - establish a local intensity variation  $[I(x,t)]$  from data values in successive data sets in corresponding spatial positions, and
  - on the basis of the local intensity variation a region of interest is localized from one or
- 25 more of the successive data sets,
- the local intensity variation in the region of interest is in conformity with a predetermined property.

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17. A computer program for analyzing successive data sets,

- in which the individual data sets comprise data elements which assign data values to spatial positions,
- which computer system comprises instructions for
- establishing a local intensity variation  $[I(x,t)]$  from data values in successive data sets in corresponding spatial positions, and

- localizing, on the basis of the local intensity variation, a region of interest from one or more of the successive data sets,
- the local intensity variation in the region of interest being in conformity with a predetermined property.

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